## CONGRESSMAN SHERWOOD BOEHLERT (R-NY) ACADEMY CONVOCATION ON "GATHERING STORM" September 28, 2006

It's an honor to be with you this morning to talk about what is probably the most important and difficult challenge facing our nation – how to remain economically competitive in the years to come.

And I'm not exaggerating this issue's importance for rhetorical effect. We won't be able to eliminate any of our other vulnerabilities – our "oil addiction" or terrorism, to take two pressing examples – if we are not economically strong, if we don't have the world's best minds in this and future generations working to develop new technologies.

Now I imagine I don't actually have to convince any of you of that. If you didn't recognize the surpassing importance of shoring up and improving our nation's research and education capabilities, you wouldn't be here in the first place.

In fact, I almost had to laugh when I read in our instructions that one of this opening session's purposes was to "inspire" the audience. Inspire you? You're the inspiration for us – our job in Washington should be to help you do what you already want to do – improve your state or locality's education system and economic base.

I was a county executive; I know what it's like to be "in the trenches" like you are.

So I want to start by saluting all of you for being here, and for doing what you do every day; and I want to thank the Academy for holding this event.

In truth, I'm a little worried that starting your day listening to four Washington politicians in an election year: well, it's more likely to test your level of inspiration than to intensify it.

So I'm going to try to stick to my time limit, and since we share the same goals and values, I'm not going to spend more time describing the difficulties we face and why they are of concern. Instead, I want to talk about how Washington is, and sometimes isn't, reacting.

Let me start by noting that the report you're all here to build on, "Rising Above the Gathering Storm," took Washington by storm. I can't remember another report on this subject – or many reports on any subject – that so immediately intensified and gave focus to a policy discussion.

There had been a number of other excellent reports on competitiveness in the year or so before "Gathering Storm" was issued, and there had been discussion in some quarters of Congress – that's why several of us asked the Academy to do the report – but the competitiveness issue was frankly not on the front burner. Boy, now it is.

And even in the highly divisive atmosphere that now prevails in Washington, there is unity on the fundamentals about competitiveness, and the President as well as Congress, and both political parties are touting their efforts to increase spending on physical science research and to increase the focus on science, technology, engineering and mathematics, or STEM, education.

That's good news – and not to be taken for granted in the current political environment.

And that somewhat unlikely level of unity is on the brink of producing some concrete results.

Most important, Congress is likely to approve substantial increases in funding for three key physical science agencies – the National Science Foundation (NSF), the Department of Energy Office of Science, and the National Institute of Standards.

I should point out that those three agencies are especially critical because they're not focused on advancing any single government mission, but rather on strengthening the nation's overall capacity in science and engineering through the support of basic research and, in the case of NSF and somewhat DOE, education. So those are the right agencies to concentrate on.

And those are the agencies for which the President requested significant spending increases in his fiscal 2007 budget as part of the American Competitiveness Initiative he announced in his State of the Union message.

The conspicuous request for those increases in a very tight budget that was not very kind to any other non-military spending was pretty remarkable. But perhaps even more amazing has been the Congressional response – namely, we've gone along with it.

Now the folks before you this morning have been calling for these increases for years. And we had some company, most notably Rep. Frank Wolf of Virginia, who chairs the House panel that funds NSF. But we were basically voices in the wilderness. Now we've got company.

Both the House and Senate appropriators in the fiscal 2007 spending bills included the money to fund the President's request despite many competing needs. Unfortunately, we're not as far as long as we should be in the appropriations process.

The whole House has approved the bills funding the three agencies, but the whole Senate has not yet taken up the bills. And even though the new fiscal year begins this Sunday, Congress isn't going to complete the appropriations process until November at the very earliest.

That delay is another sad commentary on the current political state of affairs, but it has nothing to do with the commitment to increasing spending on science and technology.

At some point, presumably later this year, we'll complete our work on fiscal 2007 spending, and the bills will include major increases for the three agencies as part of a planned 10-year doubling of their budgets.

If I had stood here a year ago and predicted that, the audience would have thought I'd taken leave of my senses. So there's been tremendous progress, and it will mean that your colleges and universities and communities will have more money for research and higher education. And that will mean that the nation is taking some important steps to preparing for the future.

On the education side, frankly, the picture isn't quite as rosy.

While Congress has increased spending for education in recent years, we need to be doing more to focus specifically on improving STEM education at the K-12 and undergraduate levels. And NSF needs to play an important role in that, as it has historically.

My one disappointment with the President's proposals was that they did not include substantial increases for NSF's education programs.

NSF has unparalleled expertise in STEM education, it awards funds competitively, and it is uniquely placed to bring universities, community colleges and school districts together. Its summer institutes back in the 1960s are still viewed as a high water mark in federal efforts to improve what we now call STEM education. So we ought to be making greater use of NSF.

The NSF education program that I'm most enthusiastic about is, not surprisingly, one I created along with Sen. Jay Rockefeller. The reason we created it is that we believe – and research has now borne out this belief – that the key to improving STEM education is improving the quality of the classroom teacher.

The program is known as the Robert Noyce Scholarship Program, named for one of the founders of Intel.

This program provides grants to colleges and universities to award scholarships to top science, math and engineering majors who agree to teach at the K-12 level two years for each year they receive aid.

The program also has a component to award stipends to science, math and engineering professionals who want to start a teaching career. And, importantly, a portion of the grant is to be used by the college or university to create programming for the scholarship students.

The Noyce program, which has only been funded for a few years, is beginning to show results. But the funding is small – less that \$10 million.

(In Washington, we call that "the single digits" because we don't focus on the "million" part. But in truth, \$10 million for a nationwide program isn't very much.)

We want to see the program increase over the next several years, as the NSF budget increases, to around the \$40 million level to create the number of teachers called for in the "Gathering Storm" report.

Congress can only provide spending on an annual basis but we can lay out goals for spending in our authorization bills.

And the House Science Committee back in June passed a bill – H.R. 5358, for those of you who want to follow up on this – that includes the needed increases for the Noyce program and also clarifies some of the statutory language to, for example, be more specific about the kinds of programming the recipient institutions should be providing. Those provisions are based on Texas' successful UTEACH (pron. You Teach) program.

The bill also includes funding authorization and language for some other key programs including the Math and Science Partnerships, which bring together universities and school districts to improve K-12 education; and a program to create centers at universities to improve undergraduate STEM education.

The experts point out that undergraduate education is really the linchpin of the system because it's where we get our next generation of teachers.

Our Science Committee bill is bipartisan, and it's very targeted – it focuses on improving existing programs, and the funding in it is restrained and based on thoughtful calculations of how much is needed.

But unfortunately, the bill has been stalled.

A handful of conservative House Members who are unwilling to see us increase spending on almost any domestic program and some of the more ideological elements within the White House have joined forces to block progress, and the House leadership has not been willing to move ahead in the face of their opposition.

That's a missed opportunity as the House is expected to leave town tomorrow and not return until after Election Day.

But we're still working it. The elements in the White House who are more kindly disposed to the bill are working on their colleagues; leadership and we are still talking, and no one knows what will happen when we come back in November.

In the meantime, the Senate this week introduced its bipartisan competitiveness package after months of negotiation. The introduction of that package is good news because it demonstrates the Senate's commitment to this issue, making it more likely that we'll be able to work out legislation in November.

I have to say, though, that I'd like to see a more streamlined, targeted approach than the 209-page Senate bill. Unless we set priorities, the legislation won't have any impact. And the Senate package could not possibly get through the House.

But it represents a lot of thought and a lot of hard work, and our staffs talk regularly. And impressively, the Senate Republican and Democrat leaders are sponsors of the Senate bill.

So while I can't say I'm optimistic that we'll get authorizing legislation enacted this year, all the pieces we need to do so are on the board, and we could negotiate a good bill if we were given the green light to do so.

At the very least, my colleagues who will be around for the 110<sup>th</sup> Congress in January, will be in a good position to start right in again on STEM issues when Congress convenes. And now that the issue is on the front burner, it's not going to go away.

But the fact that we're stalled doesn't mean that you should be.

First of all, there are plenty of federal programs already in place that provide funding and expertise to help you improve STEM education in your area. We're just trying to do even more.

The most important work, as I mentioned at the outset, has to happen at your level, anyway. We can provide some money and some guidance and some focus, but the real work happens at the state and local level, and in each classroom.

That's the real reason you're here today – for the sessions later in the day that will enable you to build on the best programs being carried out around the country.

There's simply no reason that our students should rank toward the bottom of international assessments of science and math achievement. We must set our sights on being the world leaders.

We have the tools to succeed. We're relying on all of you to put them to work. So much is at stake. What H.G. Wells wrote a century ago is truer than ever: (quote) "Civilization becomes more and more a race between education and catastrophe." Thank you all for being here.